

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-71. (Cancelled).

72. (Currently Amended) A pharmaceutical composition comprising an extract from *Trichosanthes kirilowii Maxim.*, *Trichosanthes rosthornii Harms* or *Trichosanthes japonica Regal*, wherein said extract induces hemoglobin synthesis in human K562 cells and said extract is prepared by a method comprising the steps of:

- (a) contacting *Trichosanthes kirilowii Maxim.*, *Trichosanthes rosthornii Harms* or *Trichosanthes japonica Regal* with a first solvent ~~having a polarity index greater than 2~~ consisting of an aqueous solution of from 50% to 70% ethanol to form a mixture;
- (b) heating the mixture to form a liquor; and
- (c) concentrating the liquor to form a first syrup.

73. (Previously Presented) The pharmaceutical composition of claim 72, wherein said method further comprises the step of:

- (d) extracting the first syrup with a second solvent having a polarity index less than that of the first solvent to form a second syrup.

74. (Previously Presented) The pharmaceutical composition of claim 73, wherein said method further comprises the step of:

- (e) purifying the second syrup to obtain a compound.

75. (Previously Presented) The pharmaceutical composition of any one of claims 72-74, wherein the extract exhibits a major peak with a retention time of 7.935 min when analyzed by high performance liquid chromatography using a 4.6x 250mm C4 column, a mobile phase with 75% water and 25% acetonitrile/0.1% trifluoroacetic acid, at a flow rate of 2.0 ml/min.

76. (Currently Amended) The pharmaceutical composition of any one of claims 72-74, wherein the extract is prepared from the roots, stems, leaves, flowers, fruits, or seeds of

Trichosanthes kirilowii Maxim., *Trichosanthes rosthornii Harms* or *Trichosanthes japonica Regal.*

77. (Previously Presented) The pharmaceutical composition of any one of claims 72-74, further comprising a pharmaceutically acceptable carrier or adjuvant.
78. (Canceled)
79. (Canceled)
80. (Previously Presented) The pharmaceutical composition of any one of claims 72-74, wherein the second solvent is a lower alkanol, or a mixture of water and a lower alkanol.
81. (Previously Presented) The pharmaceutical composition of claim 72, wherein the second solvent is ethanol.
82. (Previously Presented) The pharmaceutical composition of claim 72, wherein step (b) is performed at a temperature ranging from 40°C to 80°C.
83. (Withdrawn) A method for treating hemoglobinopathies in a human subject, comprising administering to the human subject in need thereof a therapeutically effective amount of the pharmaceutical composition of any one of claims 72-74.
84. (Withdrawn) The method of claim 83, wherein the hemoglobinopathies is alpha-thalassemia, beta-thalassemia, or sickle cell anemia.
85. (Withdrawn) A method for stimulating cell differentiation into erythrocytes in a human subject, comprising administering to the human subject in need thereof a therapeutically effective amount of the pharmaceutical composition of any one of claims 72-74.
86. (Withdrawn) A method for inducing expression of hemoglobin gene in a human subject, comprising administering to the human subject in need thereof a therapeutically effective amount of the pharmaceutical composition of any one of claims 72-74.

87. (Currently Amended) A pharmaceutical composition comprising an extract from a plant of *Trichosanthes*, wherein said extract induces hemoglobin synthesis in human K562 cells and said extract is prepared by a method comprising the steps of:

- (a) contacting the plant with a first solvent ~~having a polarity index greater than 2~~ consisting of an aqueous solution of from 50% to 70% ethanol to form a mixture;
- (b) heating the mixture to form a liquor;
- (c) concentrating the liquor to form a first syrup; and
- (d) extracting the first syrup with a second solvent having a polarity index less than that of the first solvent to form a second syrup.

88. (Previously Presented) The pharmaceutical composition of claim 87, wherein the extract exhibits a major peak with a retention time of 7.935 min when analyzed by high performance liquid chromatography using a 4.6x 250mm C4 column, a mobile phase with 75% water and 25% acetonitrile/0.1% trifluoroacetic acid, at a flow rate of 2.0 ml/min.

89. (Previously Presented) The pharmaceutical composition of claim 87 or 88, wherein the plant is *Trichosanthes kirilowii* Maxim, *Trichosanthes rosthornii* Harms or *Trichosanthes japonica* Regal.

90. (Previously Presented) The pharmaceutical composition of claim 87 or 88, wherein the extract is prepared from the roots, stems, leaves, flowers, fruits, or seeds of the plant.

91. (Previously Presented) The pharmaceutical composition of claim 87 or 88, further comprising a pharmaceutically acceptable carrier or adjuvant.

92. (Canceled)

93. (Canceled)

94. (Previously Presented) The pharmaceutical composition of claim 87 or 88, wherein the second solvent is a lower alkanol, or a mixture of water and a lower alkanol.

95. (Previously Presented) The pharmaceutical composition of claim 87 or 88, wherein the second solvent is ethanol.

96. (Previously Presented) The pharmaceutical composition of claim 87 or 88, wherein step (b) is performed at a temperature ranging from 40°C to 80°C.

97. (Withdrawn) A method for treating hemoglobinopathies in a human subject, comprising administering to the human subject in need thereof a therapeutically effective amount of the pharmaceutical composition of claim 87 or 88.

98. (Withdrawn) The method of claim 97, wherein the hemoglobinopathies is alpha-thalassemia, beta-thalassemia, or sickle cell anemia.

99. (Withdrawn) A method for stimulating cell differentiation into erythrocytes in a human subject, comprising administering to the human subject in need thereof a therapeutically effective amount of the pharmaceutical composition of claim 87 or 88.

100. (Withdrawn) A method for inducing expression of hemoglobin gene in a human subject, comprising administering to the human subject in need thereof a therapeutically effective amount of the pharmaceutical composition of claim 87 or 88.